

Work Order ID 97485

Thursday, February 21, 2013 12:49:27 PM

97485

Page 1

Item ID: D4008-9

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Spring

Stop

NS2

Start Date: 2/20/2013 Start Qty: 4.00

20
~~*4*~~
~~*4*~~

Required Date: 2/28/2013 Req'd Qty: 4.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

*P*Date: 2021

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D4008	C
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100

100

Purchasing

Memo

0.00

CL 13/02/13 (20)

Purchasing

Issue P/O: 19198

Purchase Part Number: 206-031-140-001

Supplier: BELL HELICOPTER

Certificate of conformity is required

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

P 13/3/13 (20)

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other						

Work Order ID 97485

Thursday, February 21, 2013 12:49:27 PM

97485

Page 2

Item ID: D4008-9

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Spring

Stop

NS2

Start Date: 2/20/2013 Start Qty: 4.00

4

Cust Item ID:

Required Date: 2/28/2013 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

AS
21
B.3 19

20

120

QC

Quality Control

130

Identify as per dwg & Stock Locations

6-A

0.00

130

Packaging

Packaging

0.00

20X

2/13/20

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

0.00

MLJ 130320

MLJ 130320

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS						
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear	General											
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>							
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>							
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>							
	Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>							
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>								
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>								
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>								
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>	Other <input type="checkbox"/>								
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>									
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>									
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>									

Picklist Print

Thursday, February 21, 2013 12:49:26 PM

Page 1

Work Order ID: 97485

Parent Item: D4008-9

Parent Item Name: Spring

Start Date: 2/20/2013

Required Date: 2/28/2013

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev A 09.12.23 new Issue Prelim EC verified by: DD IPP Rev:B 10.05.03 as per ECN10-
562 DD verified by:EC IPP REV:C 12.03.07 AS PER DWG REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
206-031-140-001		Purchased	No			110	Each	0.0000	1	4	20		

Splash Guard

D4008-TP

4/3/18 20 97485

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

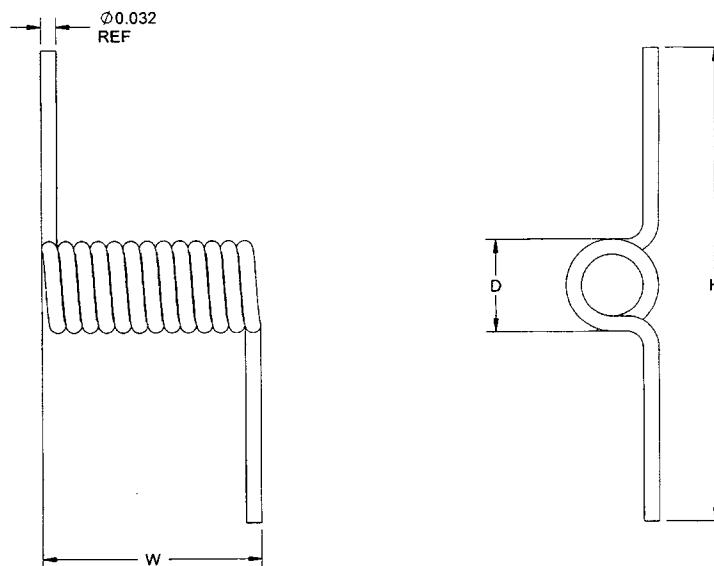
QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____			Rework	Skid-tube	Crosstube	Water Jet	Engineering				
NCR No. _____			Scrap	Machining	Small Fab	Prod. Eng. Coor.	Quality				
			Use-as-is	Thermoforming	Finishing	Rec/Store/Packaging	Other				
			Work Order Update	Large Fab	Composite	Supplier					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other							

8 7 6 5 4 3 2 1

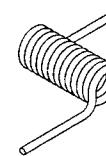
DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4008-9	REF JCA-M47-2-26

SPECIFICATION CONTROL DRAWING



911485

11/13-02-21



DART P/N	SUPPLIER	SUPPLIER P/N	WIDTH "W"	HEIGHT "H"	DIAMETER "D"	MATERIAL
D4008-9	VICTORY SPRING	N/A	0.46	0.99	0.19	STAINLESS STEEL SPRING WIRE
D4008-9	BELL HELICOPTER	206-031-140-001	0.46	0.99	0.19	STAINLESS STEEL SPRING WIRE

D4008-X SPRING

NOTES:

- 1) MATERIAL: T301 OR 304 STAINLESS STEEL SPRING WIRE Ø0.032 PER ASTM A313
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.00 lbs

DESIGN	<i>E</i>	DART AEROSPACE LTD	
DRAWN	<i>SC</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>E</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>E</i>	D4008	SHEET 9 OF 10
APPROVED	<i>MP</i>	TITLE	SCALE
DE APPR.	<i>MP</i>	SPLASH GUARD	NTS
DATE	12.01.17	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED UNDER THE CONDITION THAT IT IS NOT TO BE USED FOR ANY OTHER PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

RELEASED
2012-03-07
MP

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS						
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear	General											
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>							
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>							
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>							
	Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>							
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>								
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>								
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>								
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>	Other <input type="checkbox"/>								
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>									
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>									
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>									



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO19198**

Purchase Order Date 2/27/13

PO Print Date 2/27/13

Page Number 1 of 1

Order From :

VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

VC-VIC002

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	866 230 5312	Requisition Nbr	
Vendor Fax	866 230 5338	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Ship To :	DART AEROSPACE LTD	1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CANADA
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Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
	Vendor Part Number						
1	D4008-9P	Spring	3/08/13 Yes	20.00 Each	FedEx PI collect	\$7.4400	\$148.80

Special Inst: AS PER DWG D4008 REV. C
B97485

PO Total:

\$148.80



Change Nbr:	1	Change Date: 2/27/13	<i>W</i>	<i>C</i>	No substitution or deviation without consent. Certificate of Conformity or Material Certification required - YES <input checked="" type="radio"/> NO <input type="radio"/>
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VICTORY SPRING

convenient. consistent. correct.

#2, 6104 - 82 Ave **PACKING SLIP**

Edmonton, AB T6B 0E7

t + 780 442 4020

f + 780 466 8000

26678

BILL TO:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A, 1K7

SHIP TO:

DATE	ORDER NO.	SHIP VIA	
14-Mar-13	PO19196		
QUANTITY	DESCRIPTION	UNIT	AMOUNT
20	D4008-9P Spring		
GST #	TERMS	SUBTOTAL	FREIGHT
854454527	NET 30 DAYS		
GST			TOTAL



VICTORY SPRING

convenient. consistent. correct.

2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
f + 780 466 8000

CERTIFICATE OF CONFORMANCE

REPORT FOR :	Dart Aerospace Ltd.	DATE:	3/14/2013
PART/DRAWING #:	D4008-9P	PO #	PO19198
DESCR:	Torsion Spring	QUANTITY:	20

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS 302	yes	
Material diameter	0.035	0.035	
Coil I.D.		0.132"	
Diameter "D"	0.19"	0.199"	
Height "H"	0.99	1.018"	
Width "W"	0.46"	0.464"	

COMMENTS

Mill Certificate attached: NO
Material Heat Number: 41646

Inspected by: *Jeremy Burrowes*